to improve. Therefore, if this operation is employed in patients with occlusive disease of the ipsilateral carotid artery, it is essential that carotid endarterectomy be done in conjunction with carotid-subclavian bypass grafting.

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The Emergency Room Approach to Urethral Trauma

THE ASSOCIATION of traumatic fractures of the pelvis and lower urinary tract injuries has been well documented by numerous observers. The incidence varies from as low as 6 percent (Wakely) to as high as 25 percent (Vermooten). In evaluating the site of injury to the lower urinary tract, Clark showed that overall, 58 percent involved the urethra alone and another 9.4 percent were combined bladder and urethral injuries. These statistics should alert the emergency room physician to the high incidence of urethral injury associated with pelvic fractures.

Although death rarely results from urethral trauma, the sequelae frequently continue throughout the remainder of the patient's life. For this reason it is mandatory that the diagnosis be made in the emergency room if possible. In most instances, the emergency room physician has been conditioned to use a catheter in the severely injured patient in order to monitor his urinary output. In other cases, the physician may insert a catheter in an effort to diagnose the site of injury in the lower urinary tract. The disadvantages of this procedure are multiple. First, a partially ruptured urethra may be converted into a completely ruptured urethra. Second, a peri-vesical or peri-urethral hematoma is usually sterile but may be converted into an infected hematoma by the passage of a urethral catheter into it. Finally, the blind insertion of a catheter has the added serious risk of a false diagnosis. The catheter may be passed easily into the peri-vesical space or may curl up under the trigone giving the physician the impression that the catheter has passed through an intact urethra. This can lead to a delay of several hours before a ruptured urethra is recognized. Therefore, the insertion of a catheter has serious disadvantages which can be completely circumvented by first studying a retrograde urethrogram.

The diagnostic signs of a ruptured urethra include blood at the external meatus, inability to void, a distended bladder and superior displacement of the prostate gland on rectal examination. These signs may not all be present, however, especially if the urethra is only partially torn. Therefore, it is recommended that a retrograde urethrogram be done in all patients with a traumatically fractured pelvis before the insertion of a catheter. Only in this way can inadvertent iatrogenic injury be avoided.

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Initial Treatment of Potential Peripheral Visceral or Vascular Injuries from Penetrating Trauma

PENETRATING WOUNDS which may produce a visceral or vascular injury can result from such causes as stabbing, gunshot or flying debris from an explosion. The wounding force or the depth of the wound is frequently difficult to establish from the history and physical findings. Surgical explorations of such wounds have been strongly recommended to detect and prevent complications from non-apparent visceral or vascular injuries. Prompt surgical treatment is obviously indicated in visceral injuries such as cervical tracheal or esophageal disruption, when subcutaneous emphysema is present or when deviation or displacement of these structures is noted. The same is true when a significant hematoma is present with or without expansion or there is loss of the peripheral pulse. By contrast, patients who sustain similar penetrating injuries can be safely observed if there is no clinical evidence of an associated visceral or vascular injury. If observation is instituted the patient must be followed for potential complications in an identical manner to patients in whom surgical exploration was employed. No significant morbidity has been noted when appropriate observation was employed with no clinical evidence of a